

ferences will be forwarded to each county society, with a request for coöperation from their angles.

In several states, postgraduate activities have been put into operation on a statewide basis and with excellent, even astonishing results; and California should not be laggard in this important work. Officers and program committees of local societies are urged to arrange their meeting schedules so that the holding of clinical conferences in their districts may be promoted. Already, during the last several years, the San Joaquin County Medical Society, under the leadership of Dr. C. A. Broadus, and his coworkers, has demonstrated the value of consistent postgraduate work, and last year the medical societies of Santa Barbara, Kern and Ventura counties held a two-day, Saturday-Sunday graduate session that met with excellent attendance and hearty approval. May not the example set by these societies be well followed by other county units?

PRESIDENT ROOSEVELT'S HEALTH PROGRAM

Presidential Message of January 23, 1939.

As this February issue of CALIFORNIA AND WESTERN MEDICINE goes to press, dispatches from Washington indicate that Congress will be urged by President Franklin D. Roosevelt to enact part of the health program put forward by the Technical Group appointed by President Roosevelt's Interdepartmental Committee; the report of the two committees having been presented at the National Health Conference which convened in Washington on July 17, 1939.

Recommendations of the Health Conference have already been commented upon in previous issues of the OFFICIAL JOURNAL. It may be recalled that in a five to ten year health-development program, as outlined by the lay technical experts, it was proposed to spend as much as eight hundred and fifty million dollars during the peak year of the effort! It is reassuring, therefore, to note that the present Congress will be called upon to appropriate no more than fifty million dollars for a beginning of the work, and this along lines of health conservation with which the American Medical Association and its constituent state organizations are in full accord.

As given in the preliminary newspaper reports, the present program should meet with the joint approval of citizens and members of the medical profession. (In this issue, see also pages 139-140.)

* * *

A Provision of Particular Interest.—Worthy of special mention is the inclusion of a provision mentioned in the statement:

"1. Pay physicians to care for those too poor to afford medical care."

This official recognition of the obligations of the public in the care of the indigent sick has been too long delayed, so far as it relates to official governmental announcements, and its promulgation at this time, therefore, is all the more welcome.

The Text of the Washington Announcement. For members of the California Medical Association who may have missed reading the item referred to, the first Associated Press dispatch on the subject is printed below:

PRESIDENT ROOSEVELT URGES HEALTH PLANS TODAY *Special Message to Congress May Ask Eight Hundred and Fifty Millions Yearly for Big, Long-Range Program*

Washington, January 22 (AP).—President Roosevelt is expected to urge Congress, in a special message tomorrow, to enact legislation for a huge, long-range health-improvement program.

The health program, which would provide for expenditures of up to eight hundred and fifty million dollars annually from state and federal funds by 1949, has been a controversial issue since it was recommended to Roosevelt last July by his special Interdepartmental Committee on Health and Welfare.

Wagner Has Bill

Senator Wagner (Democrat), New York, has prepared a bill calling for a fifty-million-dollar appropriation to begin the proposed health program.

While the proposal stirred up some opposition in medical circles, the American Medical Association agreed last September with the Interdepartmental Committee that there was a vital need for an extension of existing medical facilities.

Dr. Irvin Abell of Louisville, Kentucky, President of the Association, conferred last week with President Roosevelt and said afterward that the Association was in full agreement with the Chief Executive on the need for the use of Government funds in promoting the health of the nation.

Money Program

Money appropriated for the health program would, according to recommendations of the committee, be used to:

1. Pay physicians to care for those too poor to afford medical care.
2. Assist existing hospitals and build new ones where needed, particularly in rural areas.
3. Establish clinics for quick diagnosis and treatment of disease.
4. Encourage vaccination against preventable diseases.
5. Develop maternal and child welfare facilities, including baby clinics, schools for expectant mothers, visiting nurses, and obstetrical care if needed.
6. Stimulate public health service to control disease through such activities as controlling stream pollution, establishing more efficient quarantines, health instruction for both children and adults, and closer inspection of milk and water supplies.

Funds would be allotted to states and communities under restrictions requiring that they do their part in health promotion.

SCIENTIFIC MEDICINE AND WARS

Address of Dr. Edward M. Pallette.—At the Del Monte annual session of two years ago, the retiring president, Dr. Edward M. Pallette of Los Angeles, gave to his presidential address the title, "Human Betterment." In his discussion of organic evolution he called attention to the manner in which the advances in scientific medicine had in one sense created an imbalance, through making possible the accretion to our population of many individuals who in former centuries, under the rule of the survival of the fittest, would not have lived to adult life.

Several of Doctor Pallette's statements, to which exceptions were taken, are as follows:

We are fast approaching a condition when we will be a nation of adolescents, governed by adolescents, for adoles-

cents. Or, if you will, a nation of subnormals, governed by subnormals, for subnormals. . . .

And morons all have large families of physically healthy little morons—always morons. . . .

* * *

Views of Major General William C. Rivers, U. S. A.—Along the line of Doctor Pallette's thought, but from a different angle and on a different subject, we find in an International News dispatch from New York, dated January 22, the following interesting item:

MEDICINE AID TO WAR TOLD

Medical science is responsible for the great wars of modern times because it provides warring nations with the necessary human "cannon fodder" by curing or preventing diseases which years ago wiped out whole armies.

That charge was made tonight by Major General William C. Rivers, one of the most distinguished officers in the United States Army, now retired. He spoke with several other prominent Army and Navy officers at a forum, entitled "Has Science Made War More Terrible?" presented by the American Institute.

Disease Conquered

"If you had attempted thirty years ago or so to mobilize the fifty million men put into the field by only five nations of Europe for the World War, some twenty million of them would have died of disease in the training areas.

"The remaining thirty million would have gone into the war itself weakened by diseases of the training camps—diseases like typhoid fever, which modern medicine now can control and prevent."

The above are given space because there is much room for thought on the points brought out, especially to doctors of medicine, who have had biologic training.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 132.

EDITORIAL COMMENT†

MICROBIC METAZOA

A revolutionary change is taking place in bacteriological theory as a result of the rapidly increasing evidence that certain bacterial colonies show specializations within the cell population, and integrations by means of a primordeal nervous and circulatory system. The initial observation suggesting this futuristic theory was the isolation by Muto¹ of a nonpathogenic microorganism from his own saliva that was capable of forming motile colonies on agar plates. Since these colonies crawl about in a manner suggesting the movement of snails or slugs, he named his buccal bacillus "Bacillus helixoides." About a year ago two similar micro-

organisms were isolated from the intestinal contents of worms by Smith and Clark² of the Bureau of Plant Industry, Washington, D. C. The American species were named "Bacillus alve" and "Bacillus circulans."

Cinematographic studies of *B. helixoides* (or *B. alve*) colonies are currently reported by Shinn³ of the Western Pennsylvania Hospital, Pittsburgh, Pennsylvania. Moist agar plates were seeded with this microorganism and placed in a photographic apparatus, fifteen automatic exposures per hour being made over a period of two days. A study of the resultant films showed that there are at least four stages in the development of individual colonies. Maximum colony motility was noted in the initial stage of development, before the colonies had grown to more than 0.5 millimeter in diameter. Under low magnification the small colonies often shot across the field of view with bullet-like precision. The path was rarely linear for a considerable distance, but usually consisted of a series of wide circulating loops. The calculated average speed was about 14 millimeters per hour.

As soon as the growing colonies reached 0.5 millimeter in diameter, an abrupt stop of all forward movement was usually noted, the beginning of the second or dormant stage. Growth continued during this rest period. As soon as the dormant colonies reached about 1.0 millimeter in diameter, motility was resumed. Linear movements were never observed in these awakened colonies, motility taking the form of rapidly accelerating rotations of the cell mass. In 99 per cent of the 250 rotating colonies studied in the Pittsburgh laboratory, the direction of rotation was counterclockwise. The maximum speed of rotation was inversely proportional to the diameter of the colony, and averaged about 1.4 r. p. h. for the 250 colonies studied. "As the rate (of rotation) increases, spiral arms are extended from many colonies, so that they resemble spiral nebulae. Fragments are frequently detached to lead an independent existence, and may depart entirely or continue to circle the parent as a satellite. Some colonies will detach a complete ring of growth which continues to rotate about the center at some distance from it." As the colonies approach two millimeters in diameter, the rate of rotation gradually decreases, the colony eventually "freezing" into terminal senility.

Assuming that linear and rotary motions of these colonies are due to cilia, Doctor Shinn concludes that "it would be necessary to postulate some mechanism by means of which the individualists of the cell population are induced to submit to regimentation." In other words, there must be the physiological equivalent of a nervous system or of a circulatory system within the colony. Marked morphological differences have been noted¹ between the surface bacteria and those near the colony center. Both structural differentiation and neurohormonal regimentation, therefore, are thus suggested. This regimentation is of theoretical inter-

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

¹ Muto, T.: *Centralbl. f. Bakt., Orig.*, 37:321, 1934.

² Smith, N. R., and Clark, F. E.: *J. Bact.*, 35:59, 1938.

³ Shinn, Lawrence E.: *J. Bact.*, 36:419 (Oct.), 1938.